Work Motivation Theory and Research at the Dawn of the Twenty-First Century

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■ **Abstract**   In the first *Annual Review of Psychology* chapter since 1977 devoted exclusively to work motivation, we examine progress made in theory and research on needs, traits, values, cognition, and affect as well as three bodies of literature dealing with the context of motivation: national culture, job design, and models of person-environment fit. We focus primarily on work reported between 1993 and 2003, concluding that goal-setting, social cognitive, and organizational justice theories are the three most important approaches to work motivation to appear in the last 30 years. We reach 10 generally positive conclusions regarding predicting, understanding, and influencing work motivation in the new millennium.

CONTENTS

INTRODUCTION

At the dawn of this new millennium,[1] Miner (2003) concluded that motivation continues to hold a significant position in the eyes of scholars. "If one wishes to create a highly valid theory, which is also constructed with the purpose of enhanced usefulness in practice in mind, it would be best to look to motivation theories . . . for an appropriate model" (p. 29).

Miner's conclusion is based on a comparison with other middle range theories of organizational behavior (OB). The question remains as to whether, on an absolute standard, motivation theory and research have fared well over the last quarter of a century. In answering this question, we provide a definition of the construct and an assessment of how the field of motivation in the workplace has evolved and progressed since the year in which the last chapter (Korman et al. 1977) devoted exclusively to this topic appeared in the *Annual Review of Psychology* (*ARP*). We selectively review theory and research, emphasizing work published in the past decade, 1993–2003, with special emphasis given to research on contextual effects and mediating mechanisms. This is because scholars (e.g., Pinder 1998) have pointed to the power of context to moderate opportunities for, and constraints against, organizational behavior. In addressing this issue, the chapter concludes with an assessment of the degree to which progress has been made to predict, understand, and influence motivation in the workplace.

Work motivation is a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior and to determine its form, direction, intensity, and duration (Pinder 1998, p. 11). Thus, motivation is a psychological process resulting from the interaction between the individual and the environment. Accordingly, the importance of context is acknowledged throughout our analysis. However, because of space limitations, we focus primarily on national culture, job design characteristics, and person-environment fit, omitting reviews of other exogenous sources of motivation (e.g., organization climate and culture, leadership, and groups and teams). Job design is traditionally included in reviews of motivation. National culture and person-environment fit are relatively new to this literature, hence our choice of these three contextual variables.

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[1]Latham & Budworth (2004) chronicled the history of research and theories of motivation in the workplace in the twentieth century.

MOTIVATIONAL FRAMEWORK

The framework used in reviewing the literature is consistent with Locke & Henne (1986). Consequently, the flow of the chapter is as follows: A discussion of (*a*) needs is followed by a focus on (*b*) personal traits, as the latter historically have been viewed as needs or drivers. An individual-difference variable rooted in needs is (*c*) values. Because context affects the extent to which needs are met and values are fulfilled, emphasis is given to (*d*) national culture, (*e*) job design characteristics, and (*f*) person-context fit. Needs and values affect (*g*) cognition, particularly goals. Cognition plays an integral role in each of these concepts. Although (*h*) affective reactions need not depend on cognition (Bandura 1997), the two usually are reciprocally related (Lord & Kanfer 2002). Moreover, emotion-focused coping encompasses both cognitive and behavioral strategies (Kanfer & Kantrowitz 2002). Finally, affect is influenced by culture as well as by organizational norms (Lord & Harvey 2002). We close with an (*i*) assessment of progress in the field since 1977.

NEEDS

Kanfer (1991) has stressed the importance of needs as internal tensions that influence the mediating cognitive processes that result in behavioral variability. Thus the resurgence of emphasis on needs since 1977 is not surprising. What may be surprising is the resurgence of interest in Maslow's (1943) hierarchical need theory. Wicker et al. (1993) showed that between-goal correlations and partial correlations across four samples of college students supported Maslow's theory when intentions to act were rated rather than measures of importance. Ronen (2001), using multi-dimensional scaling of employee data collected in 15 countries rather than factor analysis, found support for the taxonomic element of Maslow's theory. Kluger & Tikochinsky (2001) advocated ongoing efforts to find ways to operationalize the theory validly.

Haslam et al. (2000) presented a process-based analysis of need structure and need salience derived from the social identity approach to organizational behavior. To understand motivation, they argued, one must understand aspirations for the self that exist in a hierarchy. When personal identity is salient, needs to self-actualize and to enhance self-esteem through personal advancement and growth become dominant. When social identity is salient, the need to enhance group-based self-esteem through a sense of relatedness, respect, peer recognition, and attainment of group goals dominate. They stated that McGregor's (1960) Theory Y assumptions apply when the supervisor and employee share the same identity; Theory X assumptions apply when they do not do so.[2] People are motivated to

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[2]Theory Y differs from Theory X in that the latter places exclusive reliance upon external control of behavior, whereas Theory Y emphasizes self-control and self-direction.

attain goals that are compatible with their self-identity. Needs associated with a specific group membership are internalized; they serve as a guide for behavior in a specific working context. Their analysis of survey data of Australian employees was interpreted as supporting social identity theory.

Ajila (1997) and Kamalanabhan et al. (1999) argued that the practical significance of Maslow's theory is widely accepted. Physiological needs are considered in decisions regarding space, lighting, and overall working conditions; safety in terms of work practices; love in regard to forming cohesive work teams; esteem through responsibility and recognition; and self-actualization in terms of opportunities for creative and challenging jobs/tasks. This is particularly true in developing countries. Employees in four manufacturing companies in Nigeria rated satisfying lower needs as most important, followed by the higher order growth needs (Ajila 1997). Among bank employees in India, officers attached greater importance to growth needs than did clerks (Rao & Kulkarni 1998).

Based on their socioanalytic theory, Hogan & Warremfeltz (2003) argued that people have innate biological needs for (*a*) acceptance and approval; (*b*) status, power, and control of resources; and (*c*) predictability and order. These needs translate into behaviors for getting along with others, getting ahead in terms of status, and making sense of the world.

Need-based theories explain why a person must act; they do not explain why specific actions are chosen in specific situations to obtain specific outcomes. Moreover, they do not easily account for individual differences. Hence, along with increased attention to needs, there has also been a resurgence of interest in individual differences, particularly with regard to the effects of job characteristics on employee motivation.

TRAITS

Traits have long been considered needs or drivers: their satisfaction leads to pleasure, and lack of fulfillment leads to displeasure (Allport 1951). Nevertheless, Mitchell (1979) found that individual difference variables had few or no moderating or mediating effects on motivation in the workplace. Subsequent findings from meta-analyses challenged this conclusion (e.g., Barrick et al. 2001). Failure to express one's traits can lead to anxiety (Cote & Moskowitz 1998). In the present century, Mitchell & Daniels (2003) reported that research on personality is the fastest growing area in the motivation literature. In a review of predictor domains, Schmitt et al. (2003) concluded that personality is the primary predictor of elements of motivation. In fact, research now shows that traits predict and/or influence job search and choice of job, as well as job performance and satisfaction. These traits include extroversion, conscientiousness, self-regulatory and self-monitoring strategies, tenacity, core self-evaluations, and goal orientation. For example, a meta-analysis by Kanfer et al. (2001) examined the relation between self-regulation and personality measures with respect to job search. The results

showed that self-regulation is more strongly related to positive than to negative affective variables.

Kanfer & Heggestad (1997) proposed a developmental theory that distinguishes between distal influences on action, in the form of relatively stable motivational traits, and proximal influences that are associated with individual differences in self-regulatory or motivational skills. Heggestad & Kanfer (1999) developed a multiple-trait motivational inventory. The scale has convergent and discriminant validity with regard to measures of motivation versus intelligence (Kanfer & Ackerman 2000).

A meta-analysis of a self-monitoring personality by Day et al. (2002) revealed a robust positive relationship with job performance, as well as a relatively strong positive relationship with advancement into leadership positions. This is because self-monitors are motivated to meet the expectations of others, which in turn enhances their likeability. Likeability is a key to job progression (Hogan et al. 1994). In an enumerative review, Day & Schleischer (2004) concluded that self-monitors outperform those who are low on needs in getting along and getting ahead. The evidence is relatively mixed on the need to make sense of the environment.

Furnham et al. (1999) found that extroverts are attracted to enriched jobs. Those who score high on neuroticism are attracted to jobs that excel on hygiene variables.

Tett & Burnett (2003) presented a person-situation interactionist model of job performance that lays the groundwork for specifying the conditions under which particular personality traits predict and explain performance in specific jobs. Their model proposes that employees seek out and are satisfied with tasks, people, and job characteristics that allow them opportunities for expressing an array of personality traits. An ideal work setting, they argued, is one that offers cues to the employee for trait expression per se as well as one where trait-expressive behavior is valued positively by others. Variance in trait-expressive behavior is maximized in "weak" situations. In "strong" situations, extrinsic rewards overpower individual differences in intrinsic rewards associated with trait expression.

Mount & Barrick (1995) showed that conscientiousness is particularly important in jobs that allow autonomy. Witt & Ferris (2003) found that the relationship between conscientiousness and job performance that requires interpersonal effectiveness is moderated by social skill. Among workers low in social skill, the relationship between conscientiousness and performance was either irrelevant or negative. Hogan & Shelton (1998) argued that social skill, a learned ability, is necessary for motivation to lead to success. High needs for achievement or power are likely frustrated, they said, among people low in social skill. Gellatly (1996) too found that conscientiousness was significantly related to performance. This effect was completely moderated by self-efficacy and two measures of personal goals.

Baum et al. (2001) showed that the relationship between personality and performance is mediated by situationally specific goals and self-efficacy. They concluded that traits should be examined through mediation models that test complex causal chains. Baum & Locke (2004) conducted a six-year follow-up study to understand

the way entrepreneurs' passion and tenacity combine to affect the success of the venture as a whole. They found that these two traits have indirect rather than direct effects through specific, nontrait mechanisms, namely goal setting and self-efficacy.

Judge et al. (1997) developed a theory of traits they labeled core self-evaluations that represent one's appraisal of people, events, and things in relation to self. Core evaluations are manifested in four traits, namely self-esteem, locus of control, neuroticism, and generalized self-efficacy. A meta-analysis showed that core self-evaluation is a strong dispositional predictor of job satisfaction (Judge & Bono 2001). Erez & Judge (2001) found that motivation mediated about half the relationship between core self-evaluations and performance. They concluded that core self-evaluation is a motivational trait, and that this explains its effect on job performance.

Dweck (1999) argued that people's conception of their ability influences the goals they pursue. Incrementalists have a learning goal orientation (LGO); they focus on the acquisition of knowledge and the perfecting of competence. Hence they choose tasks that are challenging for them. Errors are viewed as allowing opportunities to learn from mistakes. Entitists view their ability as fixed. They have a performance goal orientation (PGO), whereby they choose tasks that allow them to easily demonstrate proficiency at the expense of learning something new. A PGO disposition correlates negatively with self-efficacy (Phillips & Gully 1997). LGO is positively related to openness to new experiences and optimism (Vande-Walle 1996), internal locus of control (Button et al. 1996), desire for hard work (VandeWalle 1997), and effort (VandeWalle et al. 1999). VandeWalle et al. (1999) found that an LGO correlates positively with sales performance, but it is mediated by self-regulation (goal setting, effort, planning). Nevertheless, they concluded, "There is considerable evidence of goal orientation existing as a stable individual difference" (p. 250).

Brett & VandeWalle (1999) reported that goal orientation did not have a significant relationship with performance, but that it was mediated by the content of goals (performance versus learning goal) that individuals selected. Those with an LGO disposition selected a learning goal and those with a PGO selected performance goals. A longitudinal study showed that goal orientation influences initial emotional reactions and subsequent self-regulation in the face of negative feedback.

In summary, the importance of personality in predicting, understanding, and influencing choice, affect, and performance has been shown, as well as the importance of job characteristics (e.g., autonomy) as a mediator/moderator. A taxonomy of motivational traits and skills, as well as three theories—socioanalytic, core self-evaluations, and goal orientation—are dominating the literature.

An issue identified by Locke & Latham (2004) that has yet to be addressed is how general variables such as personality are applied to and are mediated by task and situationally specific variables in affecting performance, or how they are moderated by situations and affect situational structuring and choice. A general value or motive must be applied consciously or unconsciously to each specific task and situation.

Situational and task-specific knowledge, assessments, and intentions are likely affected by the person's values and assessments. Locke (2001) showed that values and personality work through goals and self-efficacy to influence performance. Yet it is likely that some trait effects are direct and thus are not mediated. Research is needed on if, when, and why this occurs.

VALUES

Values are rooted in needs and provide a principal basis for goals (Locke & Henne 1986). Indeed, they can be seen as trans-situational goals, varying in importance, that serve as guiding principles in the life of a person (Prince-Gibson & Schwartz 1998). Values are similar to needs in their capacity to arouse, direct, and sustain behavior. Whereas needs are inborn, values are acquired through cognition and experience. Values are a step closer to action than needs. They influence behavior because they are normative standards used to judge and choose among alternative behaviors. Although values can be subconscious, they are usually more easily verbalized than needs.

Locke & Henne (1986) argued that values are inherent in most work motivation theories. These theories focus on the influence of one or several particular values, such as perceptions of fairness on action or on the effects of values in general (expectancy theory). Goals are similar in meaning to values except that they are more specific. They hold the same means-end relationship to values as values do to needs. Goals are the mechanism by which values lead to action.

Values have been examined in expectancy-valence frameworks to predict and understand work-related behavior. Foreman & Murphy (1996) applied a valence-expectancy approach to predict job-seeking behavior. Similarly, Verplanken & Holland (2002) explored how values affect choices. Outcomes with the potential to activate a person's central values instigate the acquisition of information and motivate choice decisions in accordance with pursuing the values in question. That is, activation and information collection mediate the relationship between values and decision behavior.

In a longitudinal study, Malka & Chatman (2003) found that business school graduates who have an external work orientation reported higher job satisfaction and subjective well-being than those who reported an orientation toward the intrinsic aspects of work.

CONTEXT

From 1977 to the present there has been a paucity of theory and research on workplace values alone as predictors or independent variables. As a result of globalization, however, values have been studied within the context of a person's culture and job as well as person-environment fit.

National Culture

In an attempt to tie together needs and values, Steers & Sanchez-Runde (2002) stated that national culture determines three key sets of distal sources of motivation: (*a*) people's self-concept, including personal beliefs, needs, and values; (*b*) norms about work ethic and the nature of "achievement," tolerance for ambiguity, locus of control, etc.; and (*c*) "environmental factors" such as education and socialization experiences, economic prosperity, and political/legal systems. Based on their conceptual model, the authors concluded that these distal factors influence self-efficacy beliefs, work motivation levels, and goals, as well as the nature of incentives and disincentives to perform.

Erez & Earley (1993) have developed a model of "cultural self-representation" to guide individual behavior and managerial practices in cross-cultural settings. They argued that people strive to fulfill values for self-enhancement, efficacy, and self-consistency. Their model is based on two dimensions frequently used to characterize national cultures: collectivism versus individualism, and power distance. Three principles are advanced to assist the design and interpretation of motivation and reward systems: (*a*) identify the cultural characteristics of a country regarding collectivism/individualism and power distance; (*b*) understand yourself and the cultural values you represent; and (*c*) understand the meaning of various managerial practices (such as differential versus flat salary reward distribution and top-down versus two-way communication styles) in each country (Erez 2000).

Projecting values onto people from other cultures that differ on the above two dimensions can create dysfunctional consequences in terms of employee motivation, interpersonal communication, and overall performance (Earley 2002). A cross-cultural study by Roe et al. (2000) found differential relationships between context variables and outcome variables in a comparative test of a motivation model in Bulgaria, Hungary, and the Netherlands.

Building on research findings of other scholars, Leung (2001) has offered four hypotheses for further research: (*a*) work teams in collectivistic cultures have higher levels of unconditional benevolence and positive social identity that, in turn, lead to higher levels of in-group involvement than is the case for groups that value individualism; (*b*) productivity and performance levels are more homogenous (not necessarily higher or lower) in collectivistic cultures than in individualistic cultures; (*c*) motivational strategies by superiors have more effect on subordinates in cultures with high levels of power distance than in cultures low in power distance; and (*d*) negative reactions from supervisors in high power-distance cultures generate more negative reactions among workers than is the case in low power-distance cultures. An experiment comparing Israeli and Chinese college students in Singapore supported the hypothesis that people from low power-distance cultures, the Israelis, set higher goals and reach higher performance levels than people from a high power-distance culture, the Chinese (Kurman 2001).

Earley (2002) proposed a three-level construct of "cultural intelligence," in which a person's self-efficacy vis-à-vis social discourse in cross-cultural settings plays a key role in the effectiveness of such interactions. High self-efficacy resulted

in the individual initiating cross-cultural interactions, persisting in the face of early failures, and engaging in problem solving as a way of mastering the necessary skills.

Sue-Chan & Ong (2002) investigated the effect of goal assignment on goal commitment, self-efficacy, and performance of people from 10 different countries. Self-efficacy mediated the effect of goal assignment on performance for those low in value for power distance.

Not all motivation-related values vary across cultures. A study of more than 19,000 participants from 25 countries (Scholz et al. 2002) found a high degree of consistency in the psychometric properties of a scale assessing general self-efficacy, an important concept in the mechanisms related to goal setting and self-regulation.

In summary, significant progress has been made in understanding cross-cultural differences in work motivation. Mediating mechanisms explain why motivational strategies vary in effectiveness in different countries.

Job Design Characteristics

The job environment affects and is affected by a person's needs, personality, and values. Research emphasis has been on the former rather than on the latter.

Motivation may be low depending on the fit between the characteristics of the job and the person's values. Gustafson & Mumford (1995) reported that the ability of personality measures to predict performance as well as satisfaction increases when characteristics of a job are taken into account. Thus, Nord & Fox (1996) argued that contextual factors and the interplay between context and the individual should be taken into account in organizational behavior. Motivational researchers have responded to this suggestion. More than 200 studies were conducted between 1970 and 1990 on characteristics of jobs that are determinants of attitudinal and behavioral outcomes (Ambrose & Kulik 1999).

Job autonomy can facilitate the time necessary for learning and development, which in turn improves job performance (Wall & Jackson 1995). Cordery (1997) argued the necessity of differentiating the importance of three dimensions of job autonomy, namely (*a*) method control as defined by the amount of discretion one has over the way in which work is performed, (*b*) timing control in terms of the influence one has over scheduling of work, and (*c*) discretion in setting performance goals. He found four interrelated dimensions that affect job autonomy, namely the extent to which the supervisor (*a*) provides clear attainable goals, (*b*) exerts control over work activities, (*c*) ensures that the requisite resources are available, and (*d*) gives timely accurate feedback on progress toward goal attainment. The first three influence employee perceptions of autonomy.

An analysis of survey data from Australian employees led Wright & Cordery (1999) to conclude that affective well-being declines with traditional job designs, particularly where there is production uncertainty, but increases under "high control" job designs. Production uncertainty, they argued, is an important contextual variable that, similar to supervisory practice, has the potential to improve the

prediction and explanatory capability of job design theories. Where the work is routine and predictable, attempts to increase decision control (autonomy) within an operator's job begs the question, they said, of "control over what?" Where the opposite is true, job design can be effective in increasing motivation in the workplace.

In studies of a Dutch bank and school, Houkes et al. (2001) found that there is a positive relationship between work content (skill variety) and work motivation, and between erosion of work content and emotional exhaustion. The latter was also predicted by lack of social support.

Parker & Wall (1998) reported that work-related stress can result in emotional exhaustion and psychosomatic illness. In addition, Parker (2003) found that unenriched simplified jobs stemming from lean processes (LP) can affect an employee's level of job depression. The mediator was job characteristics. Job characteristics also partially mediated organizational commitment. To the extent that LP can be introduced in such a way as to allow job autonomy, skill use, and participative decision making, the employee's well-being and motivation increase. Failure to do so, she argued, is not likely to be conducive to an employee's self-efficacy. These findings, from a U.K.-based company, are consistent with those of Theorell & Karasek (1996), which showed that lack of job autonomy can increase the risk of cardiovascular disease.

Parker's hypothesis regarding the possible mediating effect of self-efficacy regarding job characteristics is supported by Bandura (2001). When people believe themselves to be inefficacious, they are likely to exert little or no effort even in environments that provide opportunities for growth. Conversely, when people view their environment as controllable regarding characteristics that are important to them, they are motivated to exercise fully their perceived efficacy, which in turn enhances their likelihood of success.

Edwards et al. (2000) found that mechanistically oriented job designs are associated with efficiency-related outcomes, whereas motivationally oriented job designs are associated with satisfaction-related outcomes. Moreover, these two designs typically have strong negative relationships with one another. Using the Minnesota Job Description Questionnaire within a pharmaceutical company, Morgeson & Campion (2002) outlined a process to minimize the tradeoff between employee satisfaction and efficiency: (*a*) define task clusters that form a natural work process, (*b*) quantify the task clusters in terms of their motivational (e.g., autonomy) and mechanistic (e.g., specialization) properties, and (*c*) combine task clusters to form a job core.

In summary, the importance of characteristics of jobs, particularly job autonomy, learning, performance, OCB, and satisfaction, has been shown. Autonomy is important, however, in only those jobs where the work is not routine or predictable. Unenriched routine jobs can result in job depression. A questionnaire with excellent psychometric properties now exists to assess job characteristics. Morgeson & Campion (2002) have shown that jobs have three major components: complexity, the social environment, and physical demands. Researchers have relatively ignored the latter two.

Locke & Latham (2004) noted that person-situation interaction studies generally focus on the effect of "strong" or constrained situations where employees feel less free to act as they want or "really are" as compared to when they are in "weak" situations. What has yet to be studied is strong versus weak personalities. As Bandura (1997) noted, people are not simply dropped into situations. Research is now needed on ways they choose, create, and change job characteristics, and the role of traits in doing so. For example, Rousseau (2004) is studying ways an employee directly shapes the terms of the employment arrangement by negotiating valued work conditions, and the effect that these idiosyncratic arrangements have on the person's motivation.

PERSON-CONTEXT FIT

By design, so-called goodness-of-fit models simultaneously consider individual and contextual variables. The basic assumption underlying these models is that the relationship between person variables (such as needs or values) and both individual and organizational outcomes is contingent upon various features of the environment (such as the job, the organization, or culture). These models originated with the seminal work of Shaffer (1953). He used Murray's (1938) needs to develop a goodness-of-fit model that takes into account individual differences in needs as well as the characteristics of jobs. The relationship between individual differences (e.g., needs or abilities) and both individual and organizational outcomes is contingent upon characteristics of the job or the organization as a whole (Kristof 1996). Thus, goodness-of-fit models consider individual and contextual variables simultaneously.

Cable & DeRue (2002), through a confirmatory factor analysis, found that employees differentiate among three varieties of fit: (*a*) person-environment fit (in which the focus is on organizational outcomes such as organizational identification and turnover decisions); (*b*) "needs-supplies" fit (in which the primary focus is on career-related outcomes such as employee satisfaction) and (*c*) job demands–employee abilities fit. The first two forms of fit result in benefits for both persons and organizations. Similarly, at the individual level, Holtom et al. (2002) found that matching employees' preferences for full- or part-time work status benefited job satisfaction, commitment, and retention as well as extra-role and in-role behaviors. Kristof-Brown et al. (2002) showed that three varieties of person-context fit could have simultaneous positive effects on job satisfaction. Edwards (1996) compared two versions ("supplies/values" and "demands/abilities") of fit models. He found that the former was more effective in predicting job dissatisfaction while the latter was better at predicting individual tension among graduate business students performing a managerial task. Hollenbeck et al. (2002) developed a model expanding notions of fit across several levels of analysis at once, and found that there is benefit in studying both the degree of fit between individuals and groups simultaneously with the degree of fit between those groups and their task environments.

The attraction-selection-attrition (ASA) model states that people gravitate to organizations and jobs that are congruent with their values. It addresses the dysfunctions of interpersonal homogeneity (e.g., the dangers of limited perspectives for decision making, groupthink, etc.) as well as the putative benefits such as high levels of interpersonal harmony and job satisfaction (Schneider et al. 2001). ASA offers a meso-level approach that integrates individual, organizational, and industry-wide parameters, including plausible hypotheses to explain mediating mechanisms.

A limitation of person-environment fit research is that interactions between the person and characteristics of the job or organization are usually treated as stable states rather than as dynamic. Moreover, there are no agreed-upon ways of assessing dynamic interactions (Borman et al. 2003). On balance, Hulin & Judge (2003) concluded that the conceptual advantages of goodness-of-fit models have yet to yield the significant gains that might be expected in understanding workplace affect and behavior. This may be the result of treating the environment as somehow independent of the employee, even though the employee affects the environment (cf. Bandura 2001). Additional research on person-environment fit is also needed on the extent to which performance, as opposed to satisfaction, is increased.

COGNITION

As Locke & Henne (1986) observed, cognition is inherent in motivation. The sensations of pleasure and pain are informational. Based on needs, values, and the situational context, people set goals and strategize ways to attain them. They develop assumptions of themselves and of their identity. This too affects their choice of goals and strategies. Thus, in this section we review goal setting as a theory, research on feedback and self-regulation, as well as expectancy and social cognitive theories.

Goal-Setting Theory

The content of goal-setting theory was developed inductively over a quarter of a century. Based on extensive laboratory and field experiments conducted in a wide variety of settings using many different tasks, Locke & Latham presented their first comprehensive statement of goal setting as a theory in 1990, in contrast to goal setting as a technique (Locke & Latham 1990, 1984, respectively). Research on goal-setting theory continues unabated. Mitchell & Daniels (2003, p. 231) concluded that it "is quite easily the single most dominant theory in the field, with over a thousand articles and reviews published on the topic in a little over 30 years."

Latham et al. (1994) investigated assigned versus participative goal setting in which people worked in a group (participative decision making; PDM) or alone on a complex task. No main effect was found for goal setting as the two conditions were yoked. But there was a main effect for decision making with performance significantly higher in the PDM than in the individual decision making condition.

The main effect of PDM on performance, however, was mediated by self-efficacy and task strategy.

Brown & Latham (2000) found that unionized telecommunication employees had high performance and high job satisfaction with their performance appraisal process when specific high goals were set. Moreover, self-efficacy correlated positively with subsequent performance. Lee et al. (1997) showed that if goals are perceived as impossible, offering a bonus for goal attainment can lower motivation. Klein et al. (1999) found that commitment is most important and relevant when the goal is difficult. Goal commitment measures have high reliability and validity (Klein et al. 2001, Seijts & Latham 2000a). Locke (2001) argued that the effects of incentives and personality affect performance through personal goals, goal commitment, and self-efficacy. Kirkpatrick & Locke (1996) found that goals and self-efficacy mediated the effect of visionary leadership on performance.

A meta-analysis by Zetik & Stuhlmacher (2002) revealed that negotiators who have specific, challenging, and conflicting goals consistently achieve higher profits than those with no goals. Consistent with goal-setting theory, the higher the goal, the higher the outcome. No effect was found for participation in setting goals.

Latham et al. (2002) updated the high performance cycle that explains how high goals lead to high performance, which in turn leads to rewards. Rewards result in high satisfaction as well as high self-efficacy regarding perceived ability to meet future challenges through the setting of even higher goals. High satisfaction is the result of high performance; it can lead to subsequent high performance only if it fosters organizational commitment, and only if the commitment is to specific challenging goals.

Contextual Conditions

Seijts & Latham (2000b) examined the applicability of goal-setting principles when personal goals are potentially incompatible with those of the group. They found that social dilemmas are boundary conditions for the usual positive effects of goal setting. Self-enhancing personal goals have a detrimental effect on a group's performance. Those in seven-person groups were more competitive than those in groups of three. Only when the individual's goal was compatible with the group's goal was the group's performance enhanced.

Winters & Latham (1996) replicated Kanfer & Ackerman's (1989) finding that on a task that is complex for people, urging them to do their best results in higher performance than does setting a specific high performance goal. A high learning goal in terms of discovering a specific number of ways to solve a complex task, however, led to the highest performance. A learning goal requires people to focus on understanding the task that is required of them, and developing a plan for performing it correctly. High performance is not always the result of high effort or persistence, but rather is due to cognitive understanding of the task and strategy or plan necessary for completing it (Frese & Zapf 1994).

Another impediment to the usual positive benefits of goal setting is environmental uncertainty, as the information required to set goals may become unavailable or

obsolete because of rapid ongoing environmental changes. Latham & Seijts (1999) found support for the assertion that performance errors on a dynamic task are often due to deficient decomposition of a distal goal into proximal goals. Proximal goals increase error management (Frese & Zapf 1994). Durham et al. (1997) found that on tasks that are complex for people, there are often goal-strategy interactions, with goal effects strongest when effective strategies are used. On a complex task, Seijts & Latham (2001) found that a distal learning goal in terms of discovering appropriate strategies resulted in higher self-efficacy and goal commitment than a distal performance goal. Those with high self-efficacy discovered and implemented task-relevant strategies. Mediation analyses showed that strategies had both a direct effect on self-efficacy and an indirect effect on performance. Setting proximal goals resulted in the greatest number of strategies generated. Similarly, Knight et al. (2001) reported that difficult goals affect performance through their effect on strategies. A job analysis can obviate the necessity of a learning goal by making explicit the behaviors necessary for attaining the goal (Brown & Latham 2002).

Audia et al. (2000) found that past success increased strategic decision makers' satisfaction, and satisfaction led them to increase their past strategies. Higher satisfaction was associated with higher self-efficacy and higher performance goals that increased dysfunctional persistence subsequent to a radical change in the environment.

Implementation Intentions and Auto-Motive Goals

A limitation of Locke & Latham's (1990, 2002) theory of consciously set goals is that it does not take into account that the subconscious is a storehouse of knowledge and values beyond that which is found in awareness at any given time. Arguably the most exciting research in this domain is occurring in social psychology. Gollwitzer (1999) found that goal intentions that are accompanied by implementation intentions on tasks that are complex for people lead to a higher rate of goal attainment than do goal intentions only. An implementation intention is a mental link that is created between a specific future situation and the intended goal-directed response. Thus, it is subordinate to goal intention. Implementation intentions specify when, where, and how behavior is likely to lead to goal attainment. Thus, holding an implementation intention commits the person to goal-directed behavior once the appropriate situation is encountered. By forming implementation intentions, people strategically switch from conscious effortful control of their goal-directed behavior to being automatically controlled by situational cues.

Bargh & Ferguson (2000) summarized research findings that show that automatic or nonconscious goals produce the same outcomes as conscious goal pursuit in information processing, memory storage, social behavior, and task performance, as well as in self-efficacy, self-evaluation, and mood state.

The effect of priming on nonconscious goal setting appears to be so powerful that it may raise ethical issues in the workplace. For example, Bargh et al. (2001)

found that a primed goal resulted in people continuing to work on a task after being told to stop doing so. On the positive side, primed goals were found to reduce prejudice (Bargh 1994).

Consistent with goal-setting theory, feedback is a moderator to guide behavior toward the automatized goal (Bargh & Ferguson 2000). The environment can activate a person's goal within a given situation as part of the preconscious analysis of the situation. The habitual plan for carrying out the goal is activated automatically without conscious planning. To the extent that environmental features become associated with the goal, the importance of conscious choice is removed entirely.

The *sine qua non* of these experiments is the participant's report of being "unaware." Psychologists should conduct double-blind experiments when they examine the external validity of these findings in organizational settings. An organizational setting may be sufficiently structured, relative to social settings, that it masks the effect of auto-motive goals. No study yet has compared the effect on job performance of subconscious priming with explicit goal setting.

The Galatea effect refers to the direct manipulation of a person's self-expectations (Eden & Sulimani 2002). Self-expectations are a mediator of the Pygmalion effect. Recent demonstrations of the effect have essentially been exercises in ways to increase self-efficacy through persuasion by a third party (e.g., the leader).

Feedback

Feedback is a moderator of goal-setting effects (Locke & Latham 2002). Active feedback seeking by new employees is related to high performance (Ashford & Black 1996). Ashford et al. (2003) stated that the processing of feedback likely involves monitoring the environment in an automatic preconscious fashion through visual, auditory, and relational cues. Significant changes in the environment or in the preconscious monitored cues themselves may cause a shift to the conscious seeking of feedback, and the conscious evaluation of the costs and benefits of doing so. Having sought feedback and resolving uncertainty associated with the interruption, the person returns to the automatic processing of information.

In their enumerative review, Ashford & Black (1996) also suggested three primary motives for feedback seeking: instrumental to attain a goal and perform well, ego-based to defend or enhance one's ego, and image-based to protect or enhance the impression others have of oneself. Unsolicited feedback may be discarded (Roberson et al. 2003) but, as the perceived value of feedback increases, people seek it actively and frequently (Tuckey et al. 2002).

In a study of salespeople, Brown et al. (2001) found that self-efficacy moderates the effectiveness of information seeking from supervisors and coworkers regarding role expectations and performance. Similarly, Heslin & Latham (2004) found that managers in Australia change their behavior in a positive direction in response to feedback when they have high self-efficacy to do so. Nease et al. (1999) found that self-efficacy tends to be influenced by numerous rather than single instances of feedback. Future studies should allow for a systematic analysis of quartiles to test

possible configured relationships. Self-efficacy may have a low positive effect, or even a negative effect at very low and very high levels of performance, and a high positive effect at moderate levels of performance (second and third quartiles).

Context, personality, and self-efficacy moderate feedback seeking. Williams et al. (1999) found that a feedback source that is perceived as supportive increases feedback seeking. However, people with low self-esteem lack the resilience to seek negative feedback because it may corroborate a negative self-appraisal (Bernichon et al. 2003). Tabernero & Wood (1999) and VandeWalle et al. (2000) found that people with an LGO disposition are more likely than those with a PGO disposition to process negative feedback on ways to improve performance. Perceived value of feedback seeking fully mediated the effect of LGO on actual feedback seeking in VandeWalle's study. LGO individuals are able to put negative feedback into perspective, and rebound from distress.

Given ongoing questions on the psychometric properties and factor structure of goal orientation scales (e.g., Button et al. 1996, VandeWalle 1997), given that an LGO correlates positively with effort, self-efficacy, and goal-setting level (VandeWalle et al. 2001), and given that an LGO is easily induced (Elliott & Harackiewicz 1996), it would appear that it is time to stop examining the influence of dispositional goal orientation and continue to examine it as a state. As VandeWalle (2003) stated, when the situation provides strong cues, the dispositional goal preference is overridden. This was shown empirically by Seijts et al. (2004). Thus, to select/exclude job applicants on the basis of a disposition that is acquired easily is of dubious value. Goal orientation is by no means a stable individual difference trait across situations. Dweck (1999) now believes that goal orientation is a domain-specific personality pattern. A person could have a PGO in one area of one's job and an LGO in another. Research emphasis should be placed on setting specific high learning goals and fostering an LGO on tasks that are complex for an individual.

Brown et al. (2001) found that people with high self-efficacy use feedback to increase motivation, task focus, and effort and to decrease anxiety and self-debilitating thoughts. Renn & Fedor (2001) reported that feedback seeking increases goal setting, which in turn increases quality and quantity of performance.

Kluger & DeNisi (1996) reported that the effect of feedback is variable; 38% of feedback interventions had negative effects on performance. They proposed that task-focused individuals who receive feedback are likely to maintain cognitive resources allocated to the task whereas ego-involved people allocate their cognitive resources away from the focal task to self, which in turn decreases the potential for future task success following feedback. Heimbeck et al. (2003) found that error management instructions (e.g., "I have made an error. Great!") help to keep attention on the task and away from the self.

Ilgen & Davis (2000) provided a model to aid practitioners in providing negative feedback. A meta-analysis by Kluger & DeNisi (1996), however, shows that feedback sign per se is not a moderator of the effect of feedback on performance. Yet, control theory (Carver et al. 2000) states that failure motivates more than success, whereas goal-setting (Locke & Latham 2002) and social cognitive theories

(Bandura 1997) state that positive feedback in relation to goal pursuit increases effort and goal difficulty levels. Drawing on Higgins' (2000) theory, Van-Dijk & Kluger (2004) conducted a series of experiments to resolve these contradictory predictions. They showed that people who receive either positive feedback under a promotion focus or negative feedback under a prevention focus have higher motivation than do people who receive feedback that is incongruent with their regulation focus. However, as regulatory focus was easily manipulated/induced, it is questionable whether regulatory focus should be considered as an individual difference variable, or whether feedback sign should be tailored to occupations as suggested by the authors (e.g., positive feedback for people in artistic and investigative jobs).

Self-Regulation

Goal setting and feedback seeking in relation to goals are the core of self-regulation (Latham & Locke 1991). Self-regulatory processes supporting goal implementation were examined by Gollwitzer & Bayer (1999). They offered a time perspective on goal striving and self-regulatory processes as mediating the effects of intentions on behavior. The latter consists of four phases: predecisional (choosing among competing wishes, based on expected value); preactional (forming implementation intentions in the service of the goal intention); actional (bringing goal direct actions to a successful end); and postactional (evaluation as to whether further action is necessary). Brandstatter et al. (2003) inferred from field interviews that the portion of variance accounted for in action initiation increases by adding expected value, goal intention step-by-step.

The level of complexity in Gollwitzer's work on self-regulation is in strong contrast with theory and research by industrial/organizational psychologists in North America. Lord & Levy (1994) suggested that self-regulation was an automatic data-driven process. De Shon et al. (1996) obtained empirical support for this assertion. They reported that self-regulation does not require a significant amount of attentional resources.

Roe (1999) and Frese & Fay (2001) argued the importance of personal initiative, defined as self-starting proactive behavior that overcomes barriers to the attainment of self-set goals. Employees high on personal initiative are able to change the complexity of and control over their workplaces even when they do not change jobs (Frese et al. 2000). Personal initiative, measured within the framework of a situational interview (Latham & Sue-Chan 1999), has adequate inter-rater and scale reliabilities as well as construct validity (Fay & Frese 2001).

Frayne & Geringer (2000) trained insurance salespeople in the use of self-management techniques. The result was an increase in performance because of increases in self-efficacy and outcome expectancies. Bandura (2001) noted that when people are confronted by setbacks, they engage in self-enabling or self-debilitating self-talk. Millman & Latham (2001) successfully used Meichenbaum's (1971) methodology to change the dysfunctional self-talk of displaced managers to increase their self-efficacy and subsequent reemployment. Morin & Latham (2000) used Richardson's (1967) methodology regarding mental practice to increase the

self-efficacy and communication skills of supervisors in interactions with their counterparts in the union.

Expectancy Theory

After reviewing the literature, Ambrose & Kulik (1999) concluded that little or no advances have been made in expectancy theory research in the past decade. Moreover, goals have been shown to mediate the effect of expectancy theory constructs on performance (Klein 1991). Thus, Ambrose & Kulik concluded that there are few theoretical or applied reasons for additional research on the application of this theory to organizational behavior. However, Lord et al. (2003) illustrated the potential value of neuropsychologically based models for explaining expectancy theory. A major criticism of the theory, they said, is that the computations it requires are unrealistically time-consuming and often exceed working memory capacity. Using simulation methodology and neural networks that operate implicitly, the authors reinterpreted the theory so that cognitive resources were not exhausted by simple computations.

Pritchard & Payne (2003) updated the motivational component of Naylor, Pritchard, & Ilgen's "NPI" theory (1980), which they stated is based on expectancy theory. Motivation is defined as the process that determines how energy is used to satisfy needs. Motivation is a resource-allocation process where time and energy are allocated to an array of tasks. Motivation includes the direction, intensity, and persistence of this allocation process. Motivation is seen as a future-oriented concept in that people anticipate the amount of need satisfaction that will occur when outcomes are received. The perceived relationship between applying energy to actions and the resulting need satisfaction influences how much of the energy pool is devoted to that action. Empirical studies are needed to test the predictive and explanatory power of this theory.

An intervention known as the productivity measurement and enhancement system (ProMes) is based directly on NPI theory, with emphasis on goal setting and feedback (Pritchard et al. 2002). It is a step-by-step process that (*a*) identifies organizational objectives, (*b*) measures the extent to which the objectives are met, and (*c*) provides a feedback system regarding performance. Productivity is defined as how well a system uses its resources to achieve its goals. ProMes has led to organizational-level productivity improvements in European countries regardless of differences in culture.

Social Cognitive Theory

With few exceptions (e.g., Komaki et al. 2000), little attention has been given since 1977 to the philosophy of behaviorism as an approach to motivation. This is due in large part to social cognitive theory (SCT) (Bandura 1977), one of the most significant theories to influence motivation research subsequent to the Korman et al. (1977) review. SCT research shows empirically that the effect of environmental antecedents and consequences are mediated by cognitive variables. SCT

emphasizes dual control systems in the self-regulation of motivation, namely a proactive discrepancy production system that works in concert with a reactive discrepancy reduction system (Bandura 2001). Thus, people are motivated by the foresight of goals, not just the hindsight of shortfalls. A specific high goal creates negative discrepancies to be mastered. Effort and resources are mobilized based on anticipatory estimates of what is necessary for goal attainment. Therefore, at the outset a goal can enhance performance before any feedback is provided. Upon goal attainment, people with high self-efficacy set an even higher goal because this creates new motivating discrepancies to be mastered. If the goal is not attained, self-efficacy and goal commitment predict whether people redouble their effort, react apathetically, or become despondent. Meta-analyses by Sadri & Robertson (1993) as well as Stajkovic & Luthans (1998) of wide-ranging methodological and analytic work-related laboratory and field studies provide overwhelming evidence that efficacy beliefs influence the level of motivation and performance. Colquitt et al. (2000) found that self-efficacy relates to transfer of training independent of skill acquisition.

Nevertheless, Vancouver and colleagues (Vancouver et al. 2001) have attacked SCT. In a laboratory experiment, they showed that as people near their goal, they slacken their effort and consequently perform poorly. High self-efficacy, they said, creates complacency that undermines performance. Based on nine meta-analyses conducted by other scholars across diverse spheres of functioning, Bandura & Locke (2003) concluded that this contradictory finding was an artifact of the particular laboratory task that was used.

This is not to say that high self-efficacy is always desirable. It can be the source of inappropriate task persistence (Whyte et al. 1997). The correction for the downside of seeking success, however, is not to diminish self-efficacy. The correction likely lies in developing ways of identifying ongoing practices that have exceeded the point of utility. The necessity for doing so is evident in the airline and trucking industries. Dysfunctional persistence was shown to be the result of high goals, self-efficacy, and satisfaction with past performance. The result was less seeking of information after a radical environmental change (Audia et al. 2000).

SCT rejects the trait approach to human behavior. Perceived self-efficacy and outcome expectancies are not contextless global dispositions assessed by an omnibus test (Bandura 2002). Nevertheless, Chen et al. (2004) have validated a measure of general rather than task-specific self-efficacy. They found that self-efficacy is distinct from self-esteem in predicting important outcomes in organizational settings. Eden (2001) showed that this measure, namely a person's belief in the efficacy of the tools available to perform the requisite work, can be as motivating as self-efficacy.

Bandura (personal communication, 2003) disagrees strongly with the development of this type of scale: "There is no all purpose specific self-efficacy scale. It is a contradiction in terms. Specific scales are tailored to particular domains of functioning. An already developed specific scale is usable in other studies only if the activity domain is the same as the one on which the scale was developed."

AFFECT/EMOTION

Mowday & Sutton (1993) argued against an overemphasis on cognition in the study of motivation. This is because moods and emotions influence the attainment of complex long-term goals (Lord & Kanfer 2002) and are interrelated with the other constructs we have discussed. Brief & Weiss (2002) devoted their *ARP* chapter to this subject matter. Hence, we report only a few recently published studies.

Erez & Isen (2002) showed that people with higher levels of positive affect exhibited higher levels of persistence, effort, self-reported motivation, and performance on two different tasks. Positive affect was associated with higher levels of valence and expectancy beliefs at these tasks as well as higher levels of instrumentality beliefs at one of them. Seo et al. (2004) offered a conceptual model to propose that affect can have direct effects on direction, intensity, and persistence, as well as indirect effects on judgments about expectancy, utility and progress, and goal characteristics.

In a study of university administrative assistants, Grandey (2003) combined notions from dramaturgy with a goodness-of-fit perspective and hypothesized that different levels of acting on the job can have different effects on employees' levels of emotional exhaustion and successful affective delivery to customers. Independent ratings of affective delivery were positively related to deep acting (which entails deliberately taking on the emotions required at the moment on a job), but negatively related to surface acting (which is seen as false and phony to customers/clients). Further, surface acting, but not deep acting, was related to self-reported stress.

In a study of creative designs for helicopters, George & Zhou (2002) found that negative rather than positive mood correlated significantly with creativity. Negative moods signal that the status quo is problematic; hence employees exert effort to generate useful ideas rather than stop because of their satisfaction with the status quo. The mediator is a meta-mood process, namely clarity of one's feelings. The moderating contextual variable is an organizational culture in which recognition and rewards are given for creativity. When clarity as to one's feelings as well as rewards are absent, negative mood appears to have little association with creativity.

Organizational Justice

A significant body of research on work motivation that has appeared since Korman et al.'s 1977 review is conceptualizations of organizational justice (Greenberg 1987). These studies, based on sociolegal research of disputants' reactions to a conflict resolution, supplement Adam's equity theory, the fundamental idea of which is that individuals develop beliefs about the inputs they provide in their employment relationship as well as about the outcomes (in the form of tangible and intangible compensation and benefits) they receive in return, and they form attitudes about the ratio between inputs and outcomes in relation to the corresponding ratios they perceive among comparison others. The premise of organizational

justice is that fair procedures enhance employee acceptance of organizational out-comes. Organizational justice is as important to leadership (e.g., De Cremer & Van Knippenberg 2002, Skarlicki & Latham 1997) as it is to employee motivation in its second premise, namely that in addition to being fair, leaders must be perceived as fair with regard to outcomes and processes that serve an important psychological need (Greenberg 1990). When employees feel unfairly treated they respond both affectively (e.g., low commitment) and behaviorally (e.g., turnover).

Harlos & Pinder (1999) reported the results of a qualitative study of 33 indi-viduals who reported having been unjustly treated in the workplace. Interactional injustice was defined as "perceived interpersonal mistreatment by a hierarchical superior or authority figure," and systemic injustice, defined as "perceptions of unfairness involving the larger organizational context within which work rela-tionships are enacted." Emotions were antecedents and consequences of injustice experiences. Superiors' expressions of anger and their widespread lack of emotion were common causes of emotional responses by employees. Fear, anger, hopeless-ness, sadness, excitement, and decreased emotionality were common emotional consequences of perceived injustice. These same emotions, in addition to several others such as rage, irritation, shame, embarrassment, guilt, dread, and cynicism appeared in the accounts of many wronged individuals. Subsequently, based in part on incidents in the Canadian military, Pinder & Harlos (2002) developed a conceptual model of the relationship between being victimized by injustice and employee silence. Two forms of silence—quiescence and acquiescence—are pro-posed, along with hypotheses regarding how wronged employees move into and between these two states.

Cropanzano et al. (2001) discussed how workers formulate appraisals of justice, why they do so, and what is being appraised. Lind's (2001) fairness heuristic theory suggests that decisions can be automatic as well as deliberate. Folger's (1998) moral virtues model adds ethical to the instrumental and relational models of justice. Justice matters to people because it facilitates maximization of personal gain, it provides information as to their value to the leader or team, and it is aligned with a basic respect for human worth (Ambrose 2002, Cropanzano et al. 2001). Van den Bos (2002) showed that the same event could be evaluated more or less severely depending on the social context. Schminke et al. (2002) found that organizational structure (decentralization, formalization, participation) affects justice perceptions of only those employees at lower rather than higher levels of the organization.

Controversy continues regarding the structure of justice. Three separate meta-analyses concluded that procedural justice and interactional justice are separate constructs (Bartle & Hayes 1999, Colquitt et al. 2001, Cohen-Charash & Spector 2000). Nevertheless, Locke (2003) argued that the latter concept should be discarded because no single term can capture all the dimensions that interactional justice is said to assess.

A second controversy is whether event and entity perceptions of justice have the same structure. The former refers to ways that employees react to specific

occurrences (e.g., pay raise) within the workplace. The entity paradigm involves an appraisal of the fairness of a person, group, or organization as a whole. Event perceptions may mediate the relation between the situational elements and global justice evaluations. Entities may cause events to be perceived as unfair. As Cropanzano et al. (2001) noted, the distinction between events and social entities suggests that researchers must make explicit what is being measured.

The dependent variables that are influenced by employee perceptions of fairness are not limited to traditional measures of job performance, citizenship behavior, or job attitudes. Additional variables affected by fairness perceptions include theft (Greenberg 2002), exploitation and self-sacrificing decision allocations (Turillo et al. 2002), retribution (Mclean Parks 1997), the aesthetically pleasing attributes of workplace revenge (Trip et al. 2002), sabotage (Ambrose et al. 2002), workplace retaliation (Skarlicki & Folger 1997), and reactions to being laid off (Skarlicki et al. 1998). In short, when employees feel unfairly treated, they respond both affectively (e.g., low commitment) and behaviorally (e.g., decrease in helping behavior). Rousseau (1995) has studied affect and behavior from the standpoint of idiosyncratic psychological contracts and the effect they have on trust in the workplace.

CONCLUSIONS

Conclusions emanating from this review are tenfold. First, three theories dominate the motivation literature: goal-setting, social cognitive, and organizational justice.[3] The latter two emerged subsequent to the Korman et al. (1977) review. In the ensuing period, behaviorism and expectancy theory have been overwhelmed by goal-setting and social cognitive theories, while equity theory has given way to conceptualizations of organizational justice. Second, whereas theory and research in the third quarter of the twentieth century focused almost exclusively on cognition (Latham & Budworth 2004), this is no longer true. Today there is recognition of the importance of affect and behavior as well as the reciprocal interactions among cognition, affect, and behavior. Research on affect is blossoming. Third, the ability to predict, understand, and influence motivation in the workplace has increased significantly as a result of the attention that has been given to all rather than only a few aspects of an employee's motivation. There is now ongoing research on needs, values, cognition (particularly goals), affect (particularly emotions), and behavior. Fourth, whereas the dependent variables historically studied

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[3]Strictly speaking, there is currently no single theory of organizational justice; rather, there are multiple conceptualizations of justice in the work place. Hence, Greenberg (2004, personal communication) prefers the term organizational justice to describe the large rapidly growing body of work in this area that as yet does not reflect a unified theoretical approach.

were limited to traditional measures of job performance and satisfaction, today's dependent variables range from citizenship to counterproductive behavior. Fifth, Cronbach's (1957) plea a half century ago for experimental and correlational psychology to combine forces has been heeded. Researchers have done a creditable job of explaining the mechanisms, particularly individual differences (traits), that mediate between independent and dependent variables. Sixth, the importance of context to motivation has been recognized much more in recent years than in the past; so much so that an additional chapter could be devoted to it. Significant advances have been made in understanding how national culture, characteristics of the job itself, and the fit between the person and the organization influence motivation. Seventh, these advances in the study of motivation may reflect the fact that this subject is no longer restricted to the research findings of North Americans. Today motivation is studied empirically by scholars worldwide (e.g., Africa, Asia, Australia, and Europe). Eighth, behavioral scientists in the latter half of the twentieth century responded positively to William James' exhortation to systematically study consciousness. At the dawn of the present century they are poised to expand their domain to the study of the pre- or subconscious. Ninth, the antagonisms among theorists that existed throughout much of the twentieth century have either disappeared or have been minimized. Much of the energy expended on theory destruction has been replaced by theory construction aimed at building upon and enhancing what is already known. Relative to the 1960s to 1980s, consensus rather than controversy characterizes the field. Tenth, the nomological nets related to work motivation constructs are thicker and tighter than ever before, but the size of the aggregate net (metaphorically speaking) is not growing at a rate commensurate with the energy that scholars and practitioners have invested since 1977. Few fundamentally new models of work motivation have appeared with the groundbreaking impact that Maslow's need theory, Vroom's expectancy theory, or Locke & Latham's goal-setting theory had when they were initially promulgated. Accordingly, Steers (2001) recently recognized the limitations of current theory and research in work motivation, and issued a call for groundbreaking papers for publication in a special edition of the *Academy of Management Review* in 2004. It is too soon to assess whether any of the papers published in response to his call will provide the new insights he sought and that we desire.

ACKNOWLEDGMENTS

The *Annual Review of Psychology* is online at http://psych.annualreviews.org

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